



Replanning, Reprogramming, and Single Point Adjustments

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NAVY CEVM





Outline

- Definitions and theory
- Models to examine the effects
- Impacts and recommendations
- Post-OTB/SPA reporting





Acronyms and Basic Definitions

- BCWS – Budgeted Cost of Work Scheduled, time phased budget
- BCWP – Budgeted Cost of Work Performed, earned value
- ACWP – Actual Cost of Work Performed, actuals
- BAC – Budget at Complete (sum of all BCWS)
- EAC – Estimate at Complete
- VAC – Variance at Complete (BAC-EAC)
- ETC – Estimate to Complete, time phased estimate of future cost





Rebaselining? Be More Specific

- Rebaseline – a general term that refers to a major realignment of the performance measurement baseline performed to improve the correlation between the work plan and the baseline budget, scope, and schedule
 - may be performed against limited WBS elements, limited Contract Line Items (CLINs), or against the total contract/program. For the purpose of this training we assume a total contract/program level rebaseline.
 - Replanning and Reprogramming are two types of rebaselines and are defined in the following charts
 - Single point adjustment refers specifically to the treatment of incurred variances within the rebaseline transaction.





What is Replanning?

- Replanning - refers to a realignment of the schedule baseline and a reallocation of the budget baseline for remaining effort (rebaseline) where the revised plan falls within the existing cost and schedule constraints of the contract
 - Rebaseline
 - No increase to CBB
 - No extension of period of performance





What is Reprogramming?

- Reprogramming - refers to realignment of the schedule baseline and a reallocation of budget baseline for remaining effort (rebaseline), but it differs in that it results in one or both of the following scenarios:
 - Over Target Baseline (OTB) - A performance measurement baseline (PMB) where additional BCWS is added such that the total allocated budget (TAB) exceeds the negotiated contract budget base (CBB)
 - Over Target Schedule (OTS) - A schedule with baseline dates that exceed the contract milestones





What is a Single Point Adjustment?

- Single Point Adjustment (SPA) refers specifically to the elimination of historical performance variance as a part of a rebaseline transaction (via current month adjustment). There are several types, but the most common SPA types are:
 - Cost & Schedule – BCWS and BCWP are set equal to ACWP, thereby eliminating both cost and schedule variances.
 - Schedule only – BCWS is set equal to BCWP, eliminating the schedule variance. Cost performance metrics are left intact.
- Because one or both of the variance metrics is reset, an SPA is often simply referred to as a “Reset”.





OTSs and SPAs?

- Improper baseline control
 - Pressure to improve EV metrics may influence contractor or government program management to inappropriately suggest an SPA.
- Legitimate justifications
 - Significant changes to scope
 - Significant changes to the technical approach to effort
 - Variances become so large that usefulness of metrics as a path forward is questionable





Examples To Show Impacts

For the next 5 slides, consider the following contract:

- Month 4 has just ended
- Status $SV=(12)$, $CV=(32)$
- Work remaining = $\$80 - \$28 = \$52$
- Contractor revises EAC to project a 100% overrun
- For each scenario, assume contractor achieves the EAC cost and schedule projection.

Cat	1	2	3	4	5	6	7	8	9	10	Total
BCWS/BAC	10	10	10	10	10	10	10	10			80
BCWP	10	8	5	5							28
ACWP	15	15	15	15							60
ETC/EAC	15	15	15	15	20	20	15	15	15	15	160

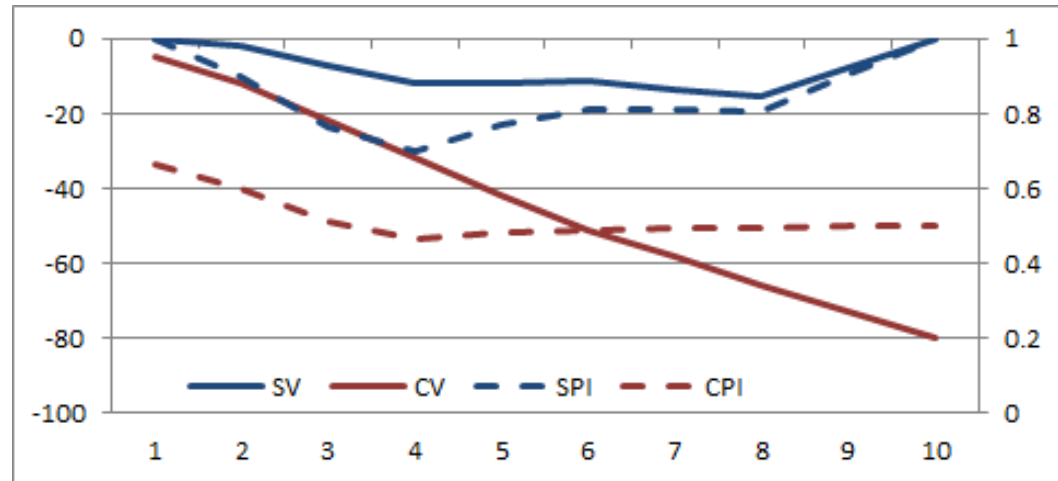




No SPA Replan, No OTB

Cat	1	2	3	4	5	6	7	8	9	10	Total
BCWS/BAC	10	10	10	10	10	10	10	10			80
BCWP	10	8	5	5	10.4	10.4	7.8	7.8	7.8	7.8	80
ACWP	15	15	15	15	20	20	15	15	15	15	160
EAC/ETC	15	15	15	15	20	20	15	15	15	15	160

- CV degradation continues at pace
- CPI settles into the average program cost efficiency
- Schedule metrics inevitably improve as the contract closes

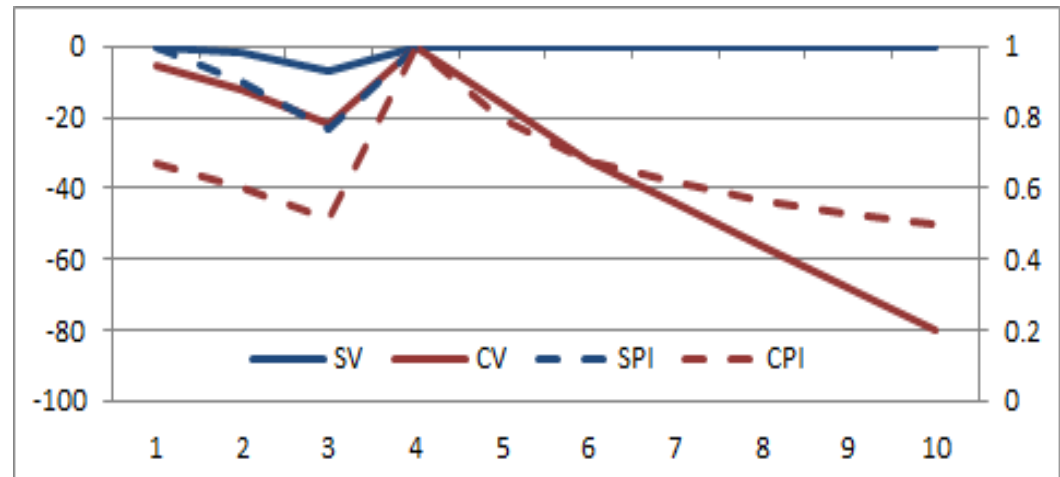




Cost & Schedule SPA, No OTB/OTS

Cat	1	2	3	4	5	6	7	8	9	10	Total
BCWS/BAC	10	10	10	30	4	4	3	3	3	3	80
BCWP	10	8	5	37	4	4	3	3	3	3	80
ACWP	15	15	15	15	20	20	15	15	15	15	160
EAC/ETC	15	15	15	15	20	20	15	15	15	15	160

- By reducing future budget to cover incurred overruns, the rate of future CV and CPI degradation inherently increases and the same final VAC is reached
- Schedule metrics were reset and experience some minor delays but inevitably recover as the contract closes

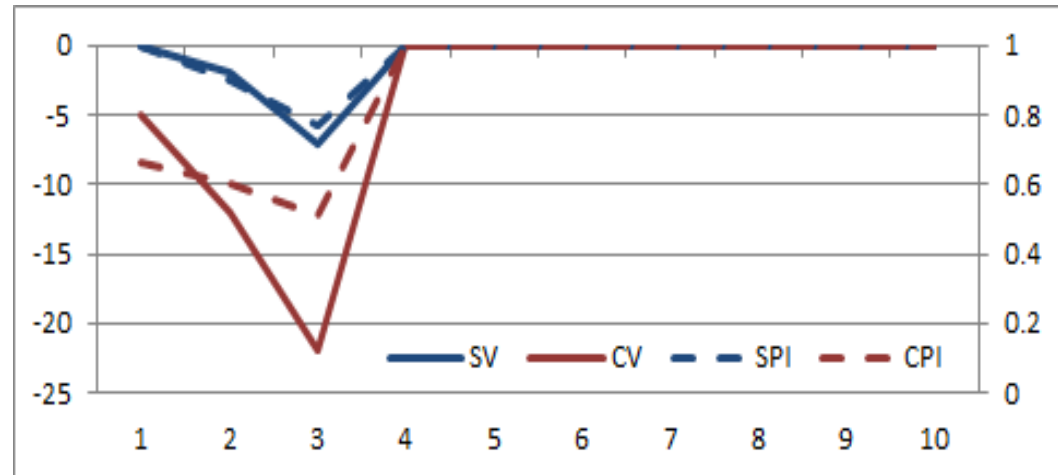




Cost & Schedule SPA, OTB/OTS

Cat	1	2	3	4	5	6	7	8	9	10	Total
Revised BCWS/BAC	10	10	10	30	20	20	15	15	15	15	160
BCWP	10	8	5	37	20	20	15	15	15	15	160
ACWP	15	15	15	15	20	20	15	15	15	15	160
EAC/ETC	15	15	15	15	20	20	15	15	15	15	160

- Since both incurred variances and the ETC were covered by OTB budget, future cost variances are
- ~~minimized or~~ schedule metrics were reset and progress occurs as expected against the revised plan.
- Note the adjustment in month 4 sets $BCWS = ACWP$

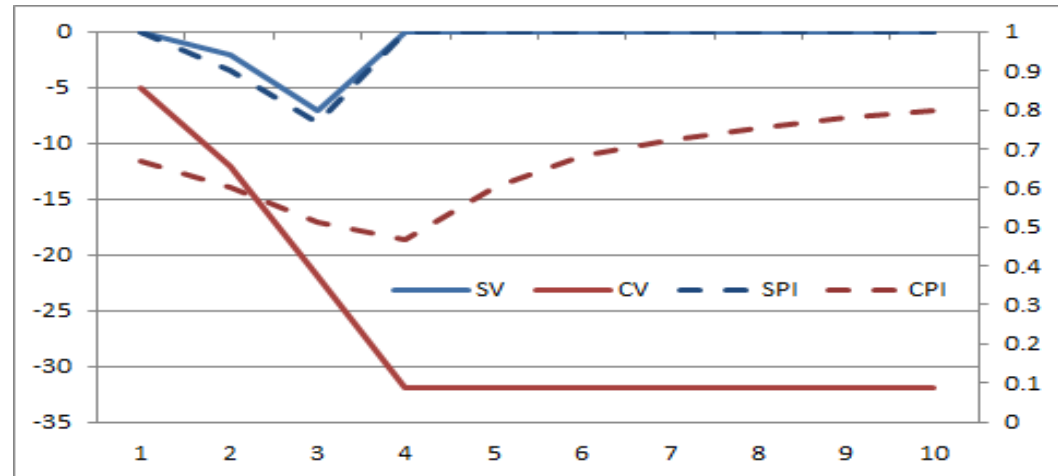




Schedule Only SPA, OTB/OTS

Cat	1	2	3	4	5	6	7	8	9	10	Total
Revised BCWS/BAC	10	10	10	-2	20	20	15	15	15	15	128
BCWP	10	8	5	5	20	20	15	15	15	15	128
ACWP	15	15	15	15	20	20	15	15	15	15	160
EAC/ETC	15	15	15	15	20	20	15	15	15	15	160

- Since incomplete effort is re-phased but only the ETC is covered by OTB budget, CV stops growing and CPI
- Improves. metrics were reset and progress occurs as expected against the revised plan
- Note the adjustment in month 4 simply reduces the cumulative BCWP for incomplete effort replanned forward

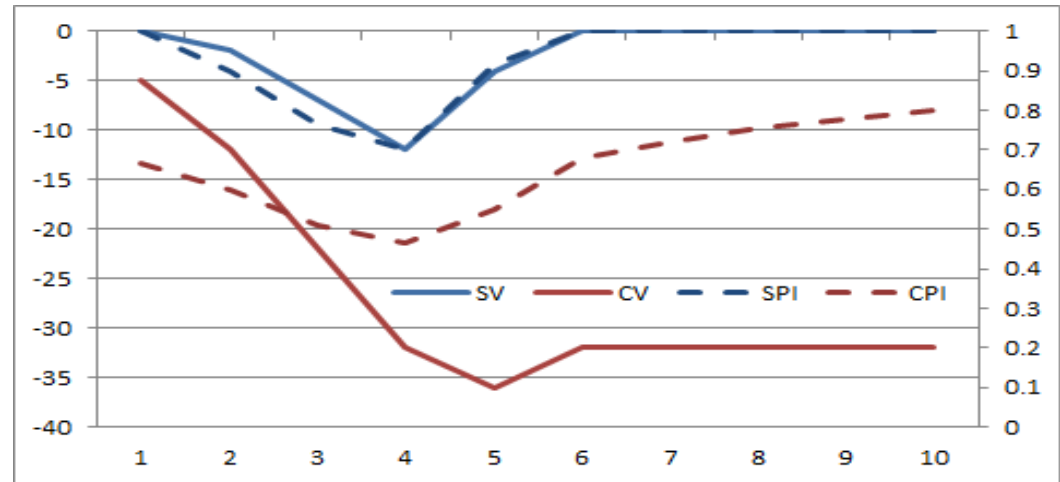




OTB/OTS with Limited/No SPA

Cat	1	2	3	4	5	6	7	8	9	10	Total
Revised BCWS/BAC	10	10	10	10	4	20	15	15	15	15	124
BCWP	10	8	5	5	16	20	15	15	15	15	124
ACWP	15	15	15	15	20	20	15	15	15	15	160
EAC/ETC	15	15	15	15	20	20	15	15	15	15	160

- In this example, only un-started tasks are rebaselined at their ETC cost. A portion of period 5/6 ETC cost represents recovery of late tasking, and won't receive OTB budget.
- In reality, minor SPA adjustments are likely to be necessary.
- Schedule for in-progress tasking recovers by period 6.
- Future efforts proceed as rebaselined.





Take-aways

- A Single Point Adjustment by itself does not “fix” a program with an unfavorable cost variance
- Don’t assume that an OTB with SPA is the best solution.
- If an OTB/OTS is deemed necessary, carefully consider what will/will not be replanned, and whether or not a reset of variances is necessary or even desirable
- From a Government perspective ,a contract should never implement an SPA without an OTB
- The key is to have an executable plan for the future





Reporting Performance After an OTB with SPA

- After an OTB with SPA has been processed, simple cumulative metrics will be artificially favorable/unfavorable.
- Alternate, revised cumulative metrics should be reported from the adjustment date forward to evaluate post-OTB/SPA performance.
- The following revised formulas are used:

$$CV_{otb} = (BCWP_{cum} - BCWP_{otb}) - (ACWP_{cum} - ACWP_{otb})$$

$$SV_{otb} = (BCWP_{cum} - BCWP_{otb}) - (BCWS_{cum} - BCWS_{otb})$$

$$CPI_{otb} = (BCWP_{cum} - BCWP_{otb}) / (ACWP_{cum} - ACWP_{otb})$$

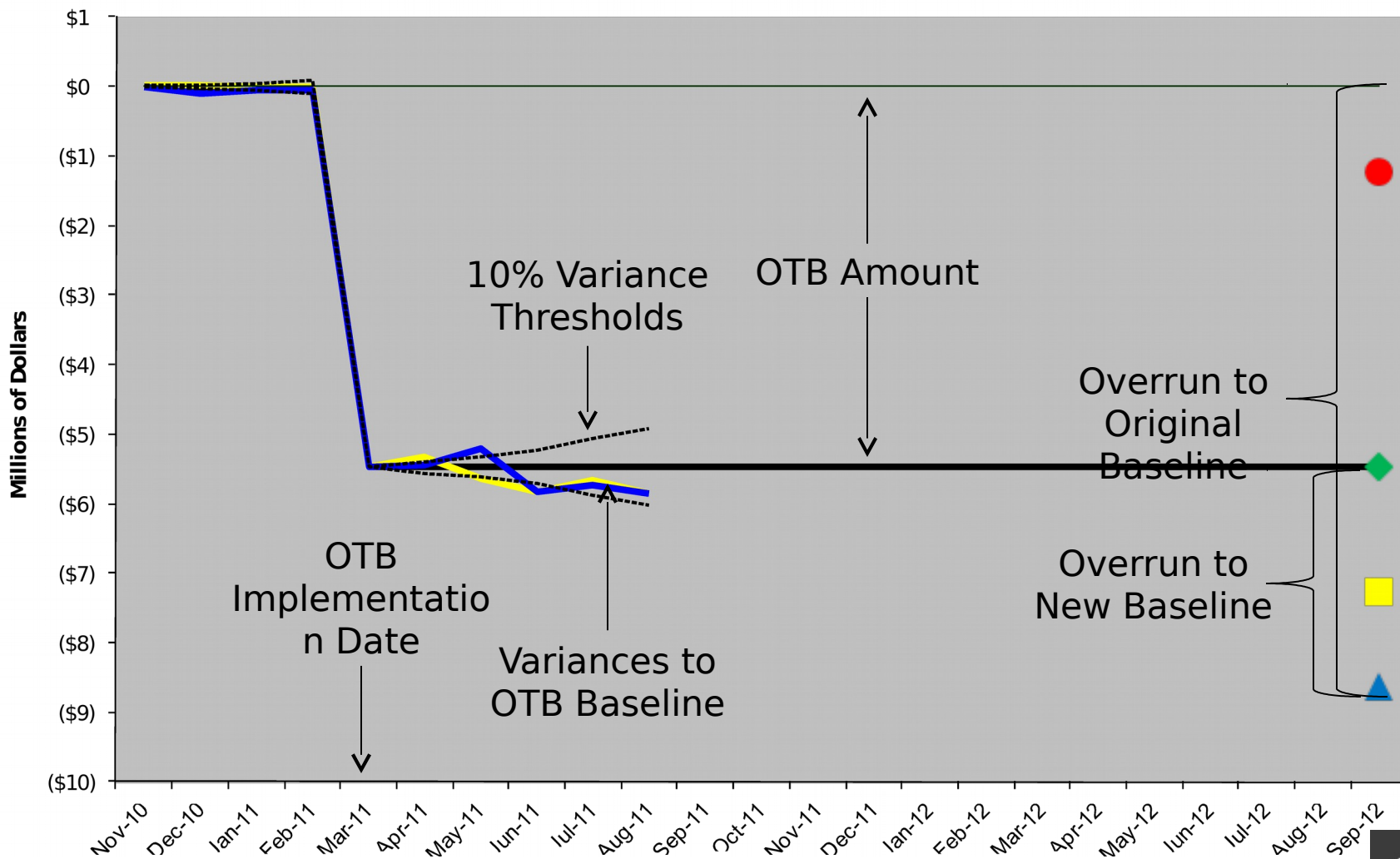
$$SPI_{otb} = (BCWP_{cum} - BCWP_{otb}) / (BCWS_{cum} - BCWS_{otb})$$

In these formulas, the OTB subscript for BCWS, BCWP, and ACWP indicates the metric value when the OTB was implemented.





OTB Variance Trends





Additional Resources

For Additional information on OTB and OTS implementations, refer to the *Over Target Baseline and Over Target Schedule Guide* released by OUSD AT&L (PARCA) on December 5, 2012.





Point of Contact

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